CONVEX GEOMETRY ADHESIVE FILM SYSTEM FOR LASER CAPTURE MICRODISSECTION

ABSTRACT OF THE DISCLOSURE

A tissue sample is conventionally visualized in a microscope. A selectively activated convex surface is provided, preferably at the distal end of a rod. This selectively activated convex surface when activated, typically with a laser through an optic light path in the microscope, provides the activated region with adhesive properties. At least one portion of the tissue sample which is to be extracted is identified. This identified portion is contacted with a portion of the selectively activated convex surface on the end of the rod. When the convex surface is activated, typically by exposure to laser light in the footprint of the desired sample, an adhesive transfer surface on the selectively activated convex surface is provided which adheres to the desired cells in the footprint of the desired sample. Thereafter, the adhesive transfer surface is separated from the remainder of the tissue sample while maintaining adhesion with the desired cells. Thus the desired portion of the tissue sample is extracted. The disclosed selectively activated convex surface is preferably utilized to collect desired tissue samples at more than one location on the same slide or from different slides. The collected tissue samples can thereafter be inspected if desired, as collected on the convex surface, and then liberated - as by dissolving the proteins of the samples. This can effectively concentrate a rarely occurring ~~remaining~~ cells in order to obtain enough pure material for analysis. A rod having a convex surface with the selectively activated material is set forth as a staple for use with the apparatus and process. Preferred shapes for the convex surface are disclosed as well as a method for coating rods with a resultant rod article.